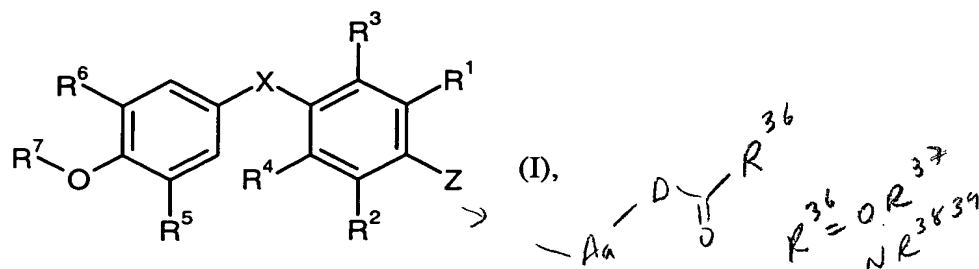


Patent claims

- Compounds of the general formula (I)



in which

X represents O, S, SO, SO₂, CH₂, CHF, CF₂ or represents NR⁸ in which R⁸ represents hydrogen or (C₁-C₄)-alkyl,

R¹ and R² are identical or different and represent hydrogen or (C₁-C₄)-alkyl,

R³ and R⁴ are identical or different and represent hydrogen, halogen, cyano, (C₁-C₆)-alkyl, CF₃, CHF₂, CH₂F, vinyl or (C₃-C₇)-cycloalkyl, where at least one of the two substituents is not hydrogen,

R⁵ represents hydrogen, (C₁-C₄)-alkyl or halogen,

R⁶ represents a group of the formula -S-R^9 , $\text{-S(O)}_n\text{-R}^{10}$, $\text{NR}^{11}\text{-C(O)-R}^{12}$, $\text{-CH}_2\text{-R}^{13}$ or -M-R^{14} , in which

C=O
 CONH, CHF, CF_2
 R⁹ represents (C₁-C₁₀)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₆)-alkenyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-arylmethyl or represents a saturated, partially unsaturated or aromatic 5- to 10-membered heterocycle having up to four identical or different heteroatoms

from the group consisting of N, O and S, where the abovementioned radicals are optionally substituted by one, two or three identical or different substituents selected from the group consisting of halogen, hydroxyl, oxo, cyano, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, carboxyl and (C₁-C₄)-alkoxycarbonyl,

n represents the number 1 or 2,

R¹⁰ represents OR¹⁵, NR¹⁶R¹⁷, (C₁-C₁₀)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₆)-alkenyl, (C₆-C₁₀)-aryl, (C₆-C₁₀)-arylmethyl or represents a saturated, partially unsaturated or aromatic 5- to 10-membered heterocycle having up to four identical or different heteroatoms from the group consisting of N, O and S, where the abovementioned radicals are optionally substituted by one, two or three identical or different substituents selected from the group consisting of halogen, hydroxyl, oxo, cyano, nitro, amino, NR¹⁸R¹⁹, trifluoromethyl, (C₁-C₆)-alkyl, optionally R²⁰-substituted (C₁-C₆)-alkoxy, (C₃-C₈)-cycloalkyl, (C₆-C₁₀)-aryl, which for its part is optionally substituted by halogen, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, trifluoromethyl, nitro or cyano, -O-C(O)-R²¹, -C(O)-OR²², -C(O)-NR²³R²⁴, -SO₂-NR²⁵R²⁶, -NH-C(O)-R²⁷ and -NH-C(O)-OR²⁸, where

R¹⁵, R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵, R²⁶, R²⁷ and R²⁸ are identical or different and each represents hydrogen, phenyl, benzyl, (C₁-C₆)-alkyl or (C₃-C₈)-cycloalkyl which for their part are optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, amino, carboxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkoxycarbonyl, (C₁-

C₄)-alkoxycarbonylamino, (C₁-C₅)-alkanoyloxy, a heterocycle or by phenyl which for its part is optionally substituted by halogen or hydroxyl,

and

5

R¹⁶ and R¹⁷ are identical or different and independently of one another represent hydrogen, straight-chain or branched (C₁-C₆)-alkyl which may be mono- or polysubstituted by identical or different substituents from the group consisting of mono-(C₁-C₆)-alkylamino, di-(C₁-C₆)-alkylamino, (C₁-C₄)-alkoxy, (C₁-C₆)-alkoxycarbonyl, carboxyl, pyridyl or (C₆-C₁₀)-aryl, where the latter for its part is optionally substituted by halogen, trifluoromethyl, (C₁-C₆)-alkyl or (C₁-C₆)-alkoxy,

10

15

represent (C₃-C₈)-cycloalkyl or represent a 5- to 7-membered heterocycle which contains one or two nitrogen atoms, where cycloalkyl and heterocycle are optionally substituted by (C₁-C₄)-alkyl,

20

or

R¹⁶ and R¹⁷ together with the nitrogen atom to which they are attached form a 5- to 7-membered saturated, optionally benzo-fused heterocycle which may contain up to two further heteroatoms from the group consisting of N, O and S and which may be substituted by amino, (C₁-C₆)-alkyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino or phenyl,

25

30

5 R¹¹ represents hydrogen, straight-chain or branched (C₁-C₆)-alkyl which may be mono- or polysubstituted by identical or different substituents from the group consisting of mono-(C₁-C₆)-alkylamino, di-(C₁-C₆)-alkylamino, (C₁-C₄)-alkoxy, (C₁-C₆)-alkoxycarbonyl, carboxyl, pyridyl and (C₆-C₁₀)-aryl, where the latter for its part is optionally substituted by halogen, trifluoromethyl, (C₁-C₆)-alkyl or (C₁-C₆)-alkoxy, represents (C₃-C₈)-cycloalkyl or represents a 5- to 7-membered heterocycle which contains one or two nitrogen atoms, where
10 cycloalkyl and heterocycle are optionally substituted by (C₁-C₄)-alkyl,

15 R¹² represents straight-chain or branched (C₁-C₁₅)-alkyl which may be substituted by (C₃-C₈)-cycloalkyl, (C₁-C₄)-alkoxy, phenyl, phenoxy or benzyloxy, where the aromatic radicals mentioned for their part may each be substituted up to three times by identical or different substituents from the group consisting of halogen, (C₁-C₆)-alkyl and (C₁-C₄)-alkoxy,

20 represents (C₃-C₈)-cycloalkyl which may be substituted by (C₁-C₄)-alkoxy or phenyl,

25 represents (C₆-C₁₀)-aryl which may be substituted up to three times by identical or different substituents from the group consisting of (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, halogen, cyano, amino, trifluoromethyl and phenyl,

or

represents a 5- or 6-membered saturated or aromatic, optionally benzo-fused heterocycle having up to two heteroatoms from the group consisting of N, O and S,

5

or

represents a group of the formula $-OR^{29}$ or $-NR^{30}R^{31}$,

in which

10

R^{29} represents straight-chain or branched (C_1-C_6) -alkyl,

and

15

R^{30} and R^{31} are identical or different and independently of one another

20

represent hydrogen, straight-chain or branched (C_1-C_{12}) -alkyl which may be substituted by aminocarbonyl, a group of the formula $-NR^{32}R^{33}$, 5- or 6-membered heteroaryl which contains up to 3 heteroatoms selected from the group consisting of N, O and S, or by phenyl, where phenyl is optionally substituted up to two times by identical or different substituents from the group consisting of halogen, (C_1-C_4) -alkyl, trifluoromethyl and (C_1-C_4) -alkoxy,

25

represent (C_3-C_8) -cycloalkyl which may be substituted by (C_1-C_4) -alkyl,

30

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represent (C₆-C₁₀)-aryl which may be substituted up to three times by identical or different substituents from the group consisting of halogen, (C₁-C₄)-alkyl, trifluoromethyl, (C₁-C₄)-alkoxy, amino, phenyl and phenoxy,

5

or

represent a 5- to 7-membered saturated or unsaturated heterocycle which contains one or two nitrogen atoms and is optionally substituted by (C₁-C₄)-alkyl or an oxo group,

10

where

R³² and R³³ are identical or different and independently of one another represent hydrogen, (C₁-C₆)-alkyl, phenyl or (C₆-C₁₀)-arylsulphonyl,

15

or

together with the nitrogen atom to which they are attached form a 3- to 7-membered saturated heterocycle which optionally contains up to two further heteroatoms from the group consisting of N, O and S,

20

25

or

R³⁰ and R³¹ together with the nitrogen atom to which they are attached form a 4- to 7-membered saturated heterocycle which may contain up to two further heteroatoms from

30

the group consisting of N, O and S and which may be substituted by amino, (C₁-C₆)-alkyl, (C₁-C₄)-alkanoyl, aminocarbonyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino, phenyl or pyridyl,

5

R¹³ represents a saturated, partially unsaturated or aromatic 5- to 10-membered heterocycle having up to three identical or different heteroatoms from the group consisting of N, O and S, which is optionally substituted by one, two or three identical or different substituents selected from the group consisting of (C₁-C₄)-alkyl, hydroxyl, oxo, (C₁-C₄)-alkoxy, halogen, cyano, carboxyl and (C₁-C₄)-alkoxycarbonyl, with the proviso that X in this case does not represent SO or SO₂,

10

15

or

R¹³ represents the group -NR³⁴R³⁵ in which

20

R³⁴ and R³⁵ are identical or different and represent hydrogen, (C₁-C₈)-alkyl which may be substituted by (C₆-C₁₀)-aryl, represent (C₃-C₈)-cycloalkyl, (C₆-C₁₀)-aryl or represent 5- or 6-membered heteroaryl having up to three identical or different heteroatoms from the group consisting of N, O and S where aryl and heteroaryl for their part are in each case optionally mono- or disubstituted by identical or different substituents from the group consisting of hydroxyl, amino, cyano, halogen, trifluoromethyl, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, carboxyl, (C₁-C₄)-alkoxycarbonyl and mono- and di-(C₁-C₄)-alkylaminocarbonyl,

25

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M represents C=O, CH(OH), CHF or CF₂,

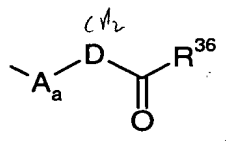
and

R¹⁴ has the meaning of R¹⁰ given above,

R⁷ represents hydrogen, (C₁-C₄)-alkyl or (C₁-C₄)-alkanoyl,

and

Z represents a group of the formula



in which

A represents O or S,

a represents the number 0 or 1,

D represents a straight-chain (C₁-C₄)-alkylene group which may be mono- or polysubstituted by identical or different substituents from the group consisting of (C₁-C₃)-alkyl, hydroxyl and fluorine,

and

R³⁶ represents OR³⁷ or NR³⁸R³⁹, in which

R^{37} , R^{38} and R^{39} are identical or different and each represents hydrogen, phenyl, benzyl, (C_1-C_6) -alkyl or (C_3-C_8) -cycloalkyl which for their part are optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, amino, carboxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkoxycarbonyl, (C_1-C_4) -alkoxycarbonylamino, (C_1-C_5) -alkanoyloxy, a heterocycle or by phenyl which for its part is optionally substituted by halogen or hydroxyl,

and their pharmaceutically acceptable salts, solvates, hydrates and hydrates of the salts.

2. Compounds of the general formula (I) according to Claim 1

in which

X represents O, S, CH_2 or CF_2 ,

R^1 and R^2 are identical or different and represent hydrogen or methyl,

R^3 and R^4 are identical or different and represent hydrogen, halogen, (C_1-C_4) -alkyl, CF_3 , CHF_2 , CH_2F , vinyl or (C_3-C_5) -cycloalkyl, where at least one of the two substituents is not hydrogen,

R^5 represents hydrogen, (C_1-C_3) -alkyl, fluorine, chlorine or bromine,

R^6 represents a group of the formula $-S(O)_2-R^{10}$, $-NR^{11}-C(O)-R^{12}$, $-CH_2-R^{13}$ or $-M-R^{14}$, in which

R^{10} represents $NR^{16}R^{17}$, (C_1-C_8) -alkyl, (C_5-C_7) -cycloalkyl, phenyl, benzyl or represents a saturated, partially unsaturated or aromatic 5- to 10-membered heterocycle having up to three identical or different heteroatoms from the group consisting of N, O and S, where the abovementioned radicals are optionally substituted by one, two or three identical or different substituents selected from the group consisting of halogen, hydroxyl, oxo, cyano, nitro, amino, dimethylamino, trifluoromethyl, (C_1-C_4) -alkyl, (C_1-C_4) -alkoxy, (C_3-C_6) -cycloalkyl, phenyl, which for its parts is optionally substituted by halogen, (C_1-C_4) -alkyl, (C_1-C_4) -alkoxy, trifluoromethyl, nitro or cyano, $-C(O)-OR^{22}$, $-C(O)-NR^{23}R^{24}$, $-SO_2-NR^{25}R^{26}$, $-NH-C(O)-R^{27}$ and $-NH-C(O)-OR^{28}$, where

R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} and R^{28} are identical or different and each represents hydrogen, phenyl, benzyl, (C_1-C_4) -alkyl or (C_5-C_7) -cycloalkyl which for their part are optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, amino, carboxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkoxycarbonyl, (C_1-C_4) -alkoxycarbonylamino or (C_1-C_5) -alkanoyloxy,

and

R^{16} and R^{17} are identical or different and independently of one another represent hydrogen, straight-chain or branched (C_1-C_6) -alkyl which may be mono- or polysubstituted by identical or different substituents from the group consisting of (C_1-C_4) -alkoxy, (C_1-C_4) -alkoxycarbonyl,

carboxyl, pyridyl or phenyl, where the latter for its part is optionally substituted by halogen, trifluoromethyl, (C₁-C₄)-alkyl or (C₁-C₄)-alkoxy,

5 represent (C₅-C₇)-cycloalkyl or represent a 5- to 7-membered heterocycle which contains one or two nitrogen atoms, where cycloalkyl and heterocycle are optionally substituted by (C₁-C₄)-alkyl,

10 or

15 R¹⁶ and R¹⁷ together with the nitrogen atom to which they are attached form a 5- to 7-membered saturated heterocycle which may contain up to two further heteroatoms from the group consisting of N, O and S and which may be substituted by amino, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino or phenyl,

20 R¹¹ represents hydrogen, straight-chain or branched (C₁-C₄)-alkyl, benzyl, (C₃-C₇)-cycloalkyl or represents a 5- to 7-membered heterocycle which contains one or two nitrogen atoms, where cycloalkyl and heterocycle are optionally substituted by (C₁-C₄)-alkyl,

25 R¹² represents straight-chain or branched (C₁-C₈)-alkyl which may be substituted by (C₃-C₇)-cycloalkyl, (C₁-C₄)-alkoxy, phenyl, phenoxy or benzyloxy, where the aromatic radicals mentioned for their part may each be substituted up to three times by

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identical or different substituents from the group consisting of halogen, (C₁-C₄)-alkyl and (C₁-C₄)-alkoxy,

or

represents phenyl which may be substituted up to three times by identical or different substituents from the group consisting of (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, halogen, cyano, amino and trifluoromethyl,

or

represents a group of the formula -OR²⁹ or -NR³⁰R³¹,
in which

R²⁹ represents straight-chain or branched (C₁-C₄)-alkyl,

and

R³⁰ and R³¹ are identical or different and independently of one another

represent hydrogen, straight-chain or branched (C₁-C₈)-alkyl which may be substituted by phenyl, which for its part is optionally substituted up to two times by identical or different substituents from the group consisting of halogen, (C₁-C₄)-alkyl, trifluoromethyl and (C₁-C₄)-alkoxy,

represent (C₃-C₇)-cycloalkyl which may be substituted by (C₁-C₄)-alkyl,

or

represent phenyl which may be substituted up to three times by identical or different substituents from the group consisting of halogen, (C₁-C₄)-alkyl, trifluoromethyl, (C₁-C₄)-alkoxy and amino,

or

R³⁰ and R³¹ together with the nitrogen atom to which they are attached form a 5- to 7-membered saturated heterocycle which may contain up to two further heteroatoms from the group consisting of N, O and S and which may be substituted by amino, (C₁-C₄)-alkyl, (C₁-C₄)-alkanoyl, aminocarbonyl, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino or phenyl,

R¹³ represents a saturated, partially unsaturated or aromatic 5- or 6-membered heterocycle having up to three identical or different heteroatoms from the group consisting of N, O and S, which is optionally substituted by one, two or three identical or different substituents selected from the group consisting of (C₁-C₄)-alkyl, hydroxyl, oxo, (C₁-C₄)-alkoxy, halogen, cyano, carboxyl and (C₁-C₄)-alkoxycarbonyl,

or

represents the group $-NR^{34}R^{35}$, in which

R^{34} and R^{35} are identical or different and represent hydrogen, (C₁-C₆)-alkyl, which may be substituted by phenyl, represent (C₅-C₇)-cycloalkyl, phenyl or represent 5- or 6-membered heteroaryl having up to three identical or different heteroatoms from the group consisting of N, O and S, where phenyl and heteroaryl for their part are each optionally mono- or disubstituted by identical or different substituents from the group consisting of hydroxyl, amino, cyano, halogen, (C₁-C₄)-alkyl, trifluoromethyl, (C₁-C₄)-alkoxy, carboxyl or (C₁-C₄)-alkoxycarbonyl,

M represents C=O, CH(OH) or CF₂,

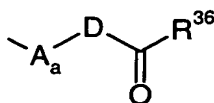
and

R^{14} has the meaning of R^{10} given above,

R^7 represents hydrogen, methyl or acetyl,

and

Z represents a group of the formula



in which

A represents O or S,

a represents the number 0 or 1,

5 D represents a straight-chain (C₁-C₃)-alkylene group which may be mono- or polysubstituted by identical or different substituents from the group consisting of methyl, hydroxyl and fluorine,

and

10

R³⁶ represents OR³⁷ or NR³⁸R³⁹, in which

15

R³⁷ represents hydrogen, phenyl, benzyl, (C₁-C₆)-alkyl or (C₃-C₇)-cycloalkyl which for their part are optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, amino, carboxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino, (C₁-C₅)-alkanoyloxy and a heterocycle,

20

and

25

R³⁸ and R³⁹ are identical or different and each represents hydrogen, (C₁-C₆)-alkyl or (C₃-C₇)-cycloalkyl, which for their part are optionally mono- or polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, amino, carboxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkoxycarbonyl, (C₁-C₄)-alkoxycarbonylamino, (C₁-C₅)-alkanoyloxy, a heterocycle and phenyl which for its part is optionally substituted by halogen or hydroxyl,

30

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and their pharmaceutically acceptable salts, solvates, hydrates and hydrates of the salts.

3. Compounds of the general formula (I) according to Claim 1

5

in which

X represents O, S or CH₂,

10

R¹ and R² represent hydrogen,

R³ and R⁴ are identical or different and represent methyl, ethyl, propyl, isopropyl, cyclopropyl, trifluoromethyl, chlorine or bromine,

15

R⁵ represents hydrogen,

R⁶ represents a group of the formula -S(O)₂-R¹⁰, -NH-C(O)-R¹², -CH₂-R¹³, -C(O)-R¹⁴ or -CH(OH)-R⁴⁰, in which

20

R¹⁰ represents phenyl or represents 5- or 6-membered heteroaryl having up to three identical or different heteroatoms from the group consisting of N, O and S, which radicals are optionally mono- or disubstituted by identical or different substituents from the group consisting of fluorine, chlorine, bromine, hydroxyl, cyano, trifluoromethyl, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, carboxyl and (C₁-C₄)-alkoxycarbonyl,

25

or

30

represents the group -NR¹⁶R¹⁷, in which

5 R^{16} and R^{17} together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated heterocycle which may contain a further heteroatom from the group consisting of N, O and S and which may be substituted by (C₁-C₄)-alkyl,

10 R^{12} represents straight-chain or branched (C₁-C₆)-alkyl which is optionally substituted by phenoxy or benzyloxy,

15 R^{13} represents 5- or 6-membered heteroaryl having up to three identical or different heteroatoms from the group consisting of N, O and S, which is optionally substituted by one or two identical or different substituents selected from the group consisting of (C₁-C₄)-alkyl, hydroxyl, (C₁-C₄)-alkoxy, fluorine, chlorine, bromine, cyano, carboxyl and (C₁-C₄)-alkoxycarbonyl, or represents the group -NR³⁴R³⁵, in which R^{34} represents (C₁-C₆)-alkyl or (C₅-C₇)-cycloalkyl,

20 and

R^{35} represents benzyl which is optionally substituted in the phenyl ring by hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl, trifluoromethyl, fluorine, chlorine or cyano,

25 R^{14} represents a group of the formula -NR⁴¹R⁴², in which

R^{41} represents hydrogen, (C₁-C₆)-alkyl or (C₃-C₇)-cycloalkyl,

30

R^{42} represents hydrogen or represents (C_1-C_4) -alkyl which may be substituted by phenyl,

or

R^{41} and R^{42} together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated heterocycle which may contain a further heteroatom from the group consisting of N, O and S and which may be substituted by (C_1-C_4) -alkyl,

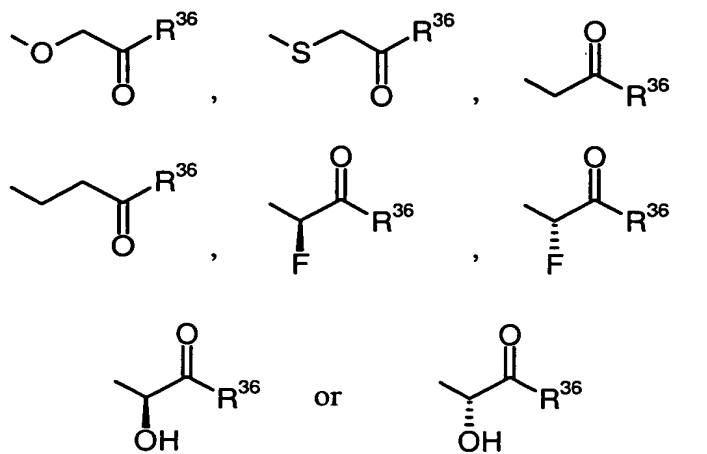
and

R^{40} represents phenyl or naphthyl, which are optionally mono- or disubstituted by identical or different substituents from the group consisting of fluorine, chlorine, bromine, (C_1-C_4) -alkyl, (C_1-C_4) -alkoxy, cyano, trifluoromethyl or (C_1-C_4) -alkoxycarbonyl,

R^7 represents hydrogen,

and

Z represents a group of the formula



in which R^{36} represents hydroxyl or the radical $-\text{C}(\text{O})-\text{R}^{36}$ has the meanings of R^{36} given above for a group which, in the sense of a prodrug, can be degraded to the carboxylic acid $-\text{C}(\text{O})-\text{OH}$ or a salt thereof,

and their pharmaceutically acceptable salts, solvates, hydrates and hydrates of the salts.

4. Compounds of the general formula (I) according to Claim 1

in which

X represents CH_2 or, in particular, oxygen,

R^1 and R^2 represent hydrogen,

R^3 and R^4 are identical or different and represent methyl, ethyl, propyl, isopropyl, cyclopropyl, trifluoromethyl, chlorine or bromine,

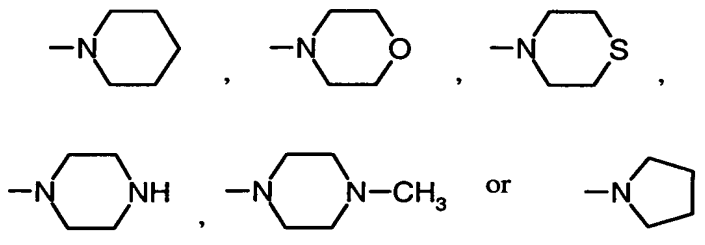
R^5 represents hydrogen,

R^6 represents a group of the formula $-S(O)_2-R^{10}$, $-CH_2-R^{13}$ or $-C(O)-R^{14}$,
in which

R^{10} represents phenyl, pyridyl, pyrimidinyl or pyridazinyl which
are optionally mono- or disubstituted by identical or different
substituents from the group consisting of fluorine, chlorine,
bromine, hydroxyl, cyano, trifluoromethyl, (C_1-C_4) -alkyl, $(C_1-$
 $C_4)$ -alkoxy, carboxyl and (C_1-C_4) -alkoxycarbonyl,

or

represents a group of the formula



R^{13} represents pyridyl, pyrimidinyl or pyridazinyl which are
optionally substituted by one or two identical or different
substituents selected from the group consisting of (C_1-C_4) -
alkyl, hydroxyl, (C_1-C_4) -alkoxy, fluorine, chlorine, bromine,
cyano, carboxyl and (C_1-C_4) -alkoxycarbonyl, or represents the
group $-NR^{34}R^{35}$, in which

R^{34} represents (C_1-C_4) -alkyl or (C_5-C_7) -cycloalkyl,

and

R^{35} represents benzyl which is optionally substituted in the phenyl ring by hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl, trifluoromethyl, fluorine, chlorine or cyano,

5 and

R^{14} represents a group of the formula $-NR^{41}R^{42}$, in which

10 R^{41} represents hydrogen, (C₁-C₄)-alkyl or (C₅-C₇)-cycloalkyl,

and

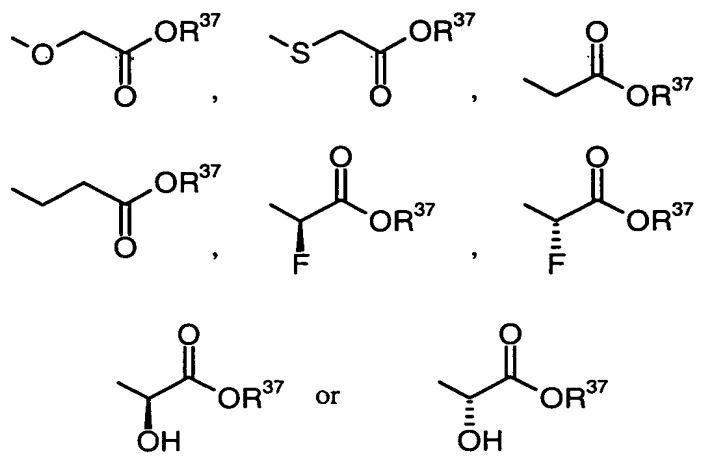
15 R^{42} represents hydrogen or represents (C₁-C₄)-alkyl which may be substituted by phenyl,

R^7 represents hydrogen,

and

20

Z represents a group of the formula

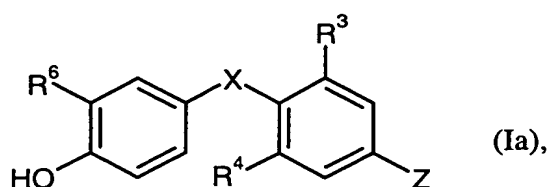


in which R^{37} represents hydrogen, (C_1-C_4) -alkyl or (C_4-C_6) -cycloalkyl,

and their pharmaceutically acceptable salts, solvates, hydrates and hydrates of the salts.

5

5. Compounds of the formula (Ia)



(Ia),

10

in which

X represents CH_2 or O,

R^3 and R^4 are identical or different and represent bromine, trifluoromethyl, ethyl, cyclopropyl and, in particular, methyl or chlorine,

15

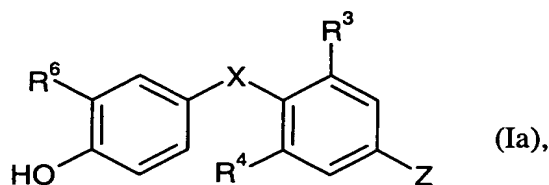
Z represents a group of the formula $-CH_2-C(O)-OH$, $-CH_2-CH_2-C(O)-OH$, $-O-CH_2-C(O)-OH$ or $-S-CH_2-C(O)-OH$,

and

R^6 represents a group of the formula $-S(O)_2-R^{10}$, in which

R^{10} represents phenyl or represents pyridyl which are optionally mono- or disubstituted by identical or different substituents from the group consisting of fluorine, chlorine, cyano, trifluoromethyl, methyl, hydroxyl and methoxy.

6. Compounds of the formula (Ia)



in which

X represents CH_2 or O,

R^3 and R^4 are identical or different and represent bromine, trifluoromethyl, ethyl, cyclopropyl and, in particular, methyl or chlorine,

Z represents a group of the formula $-CH_2-C(O)-OH$, $-CH_2-CH_2-C(O)-OH$, $-O-CH_2-C(O)-OH$, $-O-C[(CH_3)_2]-C(O)-OH$ or $-S-CH_2-C(O)-OH$,

and

R^6 represents a group of the formula $-S(O)_2-R^{10}$, in which

R¹⁰ represents phenyl or represents pyridyl which are optionally mono- or disubstituted by identical or different substituents from the group consisting of fluorine, chlorine, cyano, trifluoromethyl, methyl, hydroxyl and methoxy.

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7. Compounds as defined in Claims 1 to 6 for preventing and treating diseases.

8. Medicaments, comprising at least one compound of the general formula (I) as defined in Claims 1 to 6.

10 Sub
A1

9. Process for preparing medicaments, characterized in that at least one compound of the general formula (I) as defined in Claims 1 to 6 is converted, using excipients and/or carriers, into a suitable administration form.

15

10. Use of compounds of the general formula (I) as defined in Claims 1 to 6 for preparing medicaments.

11. Use according to Claim 8 for preparing medicaments for the treatment and/or prophylaxis of arteriosclerosis, obesity and/or hypercholesterolaemia.

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Sub
A2

12. Use according to Claim 8 for preparing medicaments for the prophylaxis and/or treatment of disease forms which can be treated with natural thyroid hormone.

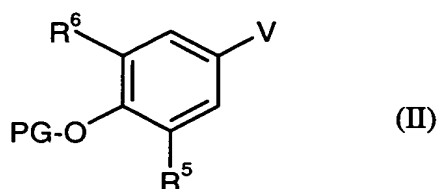
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13. Method for the treatment and/or prophylaxis of disorders, characterized in that compounds as defined in Claims 1 to 6 are used.

14. Process for preparing compounds of the formula (I) as defined in Claim 1, characterized in that reactive phenol derivatives of the general formula (II)

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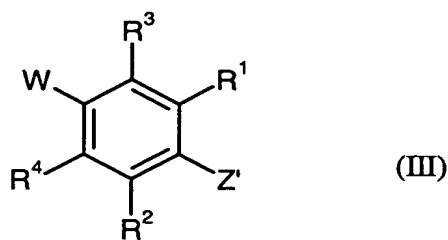
in which

R⁵ and R⁶ are as defined in Claim 1 and

PG represents a protective group and

V represents a binding or leaving group,

are reacted, if appropriate with isolation of the intermediates, or directly, with reactive phenyl derivatives of the general formula (III)



in which

R¹, R², R³ and R⁴ are as defined in Claim 1 and

W represents a binding or leaving group and

Z' has the meaning given for Z or represents OH, O-PG, SH, S-PG, or represents an aldehyde, cyano, carboxyl or (C₁-C₄)-alkoxycarbonyl group,

if appropriate in the presence of inert solvents and catalysts, to give compounds of the formula (I).

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